WDS

Choice of Professionals

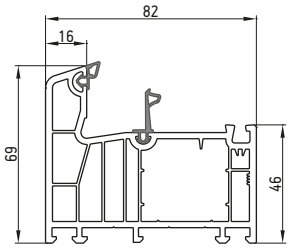
TECHNICAL BOOKLET

www.wds.ua

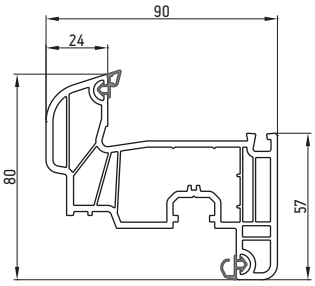
WDS 8 SERIES

Mounting depth	82 mm
Air permeability	Class 4
Waterproofness	Class 6A
Wind impact resistance	Class C3 / B3
Three loop seals	
Insulated glass unit	44 mm
U frame	0,69 W/m²K

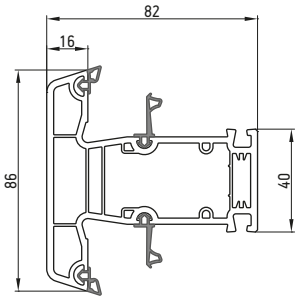
6-chamber frame
046



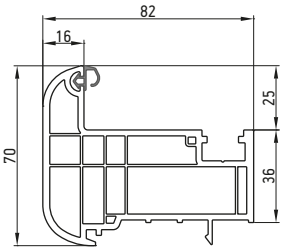
6-chamber sash
047



4-chamber mullion
048

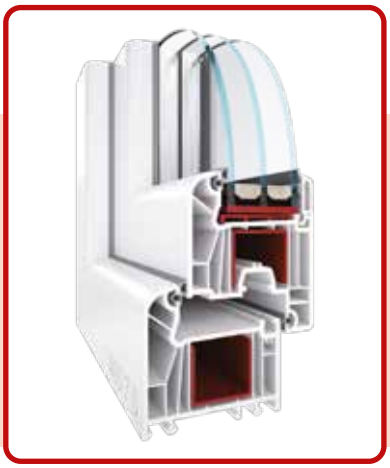


Stulp 82 mm
068



AVAILABLE IN LAMINATION

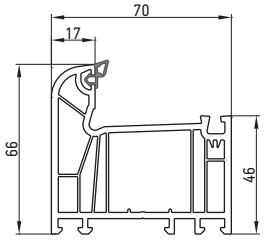
ift Rosenheim System Passport



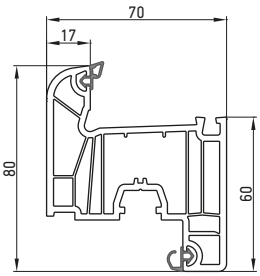
WDS 7 SERIES

Mounting depth	70 mm
Air permeability	Class 4
Waterproofness	Class 7A
Wind impact resistance	Class C3 / B3
Insulated glass unit	24, 32, 40 mm
U frame	0,93 W/m²K

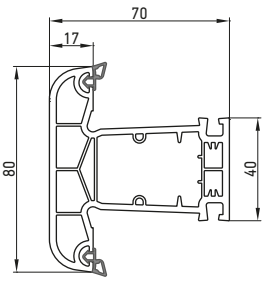
4-chamber frame
059



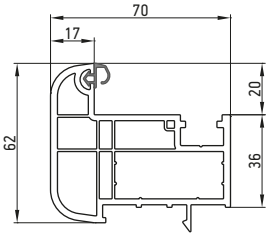
6-chamber sash
060



4-chamber mullion
058



Stulp 70 mm
054



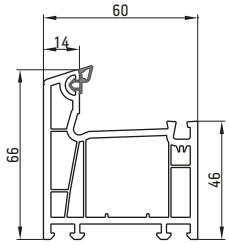
AVAILABLE IN LAMINATION

ift Rosenheim System Passport

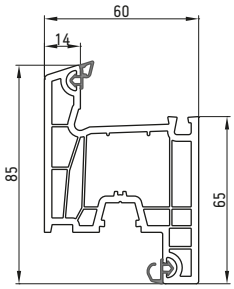
WDS 4 SERIES

Mounting depth	60 mm
Outer wall thickness	Class A
Drainage inclination	2°
Insulated glass unit	24, 32 mm, glass 6 mm
Overlap width	14 mm
U frame	1,2 W/m²K

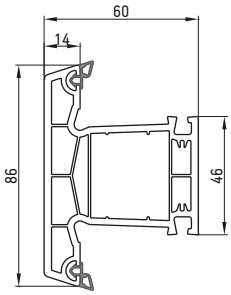
4-chamber frame
001



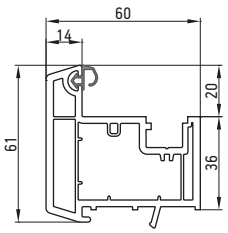
4-chamber sash
002



4-chamber mullion
003



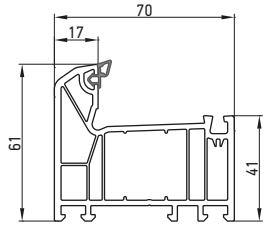
Stulp 60 mm
012



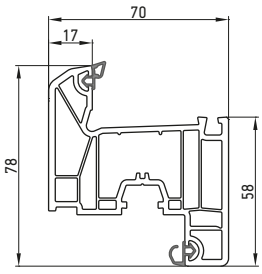
WDS 500

Mounting depth	70 mm
Outer wall thickness	клас B
Drainage inclination	2°
Insulated glass unit	24, 32, 40 мм
Overlap width	17 мм
U frame	1,12 W/m²K

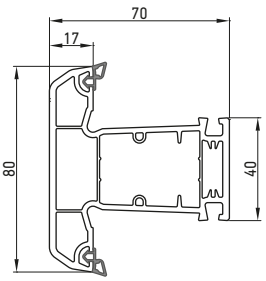
5-chamber frame
061



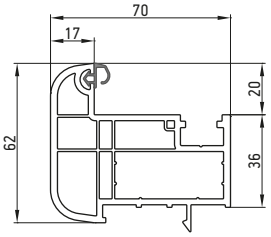
5-chamber sash
062



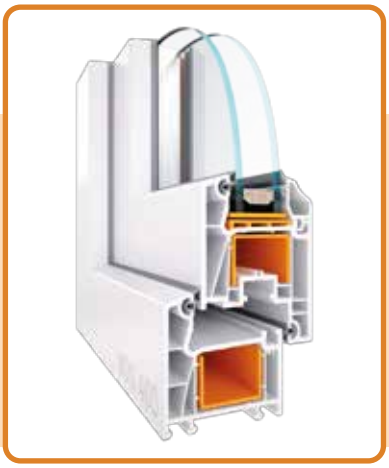
3-chamber mullion
063



Stulp 70 mm
054



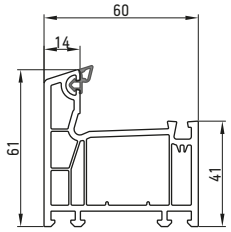
AVAILABLE IN LAMINATION



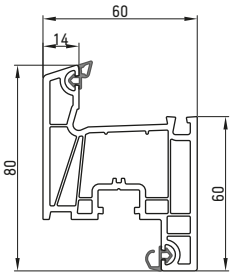
WDS 400

Mounting depth	60 mm
Outer wall thickness	Class B
Drainage inclination	2°
Insulated glass unit	24, 32 mm, glass 6 mm
Overlap width	14 mm
U frame	1,23 W/m²K

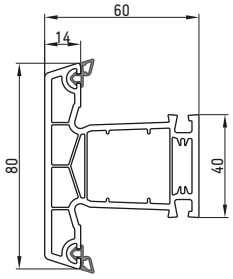
4-chamber frame
037



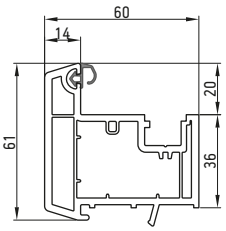
4-chamber sash
025



4-chamber mullion
027



Stulp 60 mm
012



AVAILABLE IN LAMINATION

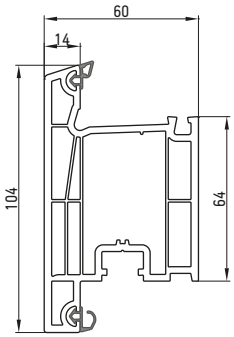
WDS Laminated profile systems			WDS 8 SERIES	WDS 7 SERIES	WDS 400	WDS 500
						
Film color		Structure color	Seal color	Seal color	Seal color	Seal color
Golden Oak	Standart colors	Caramel	● Caramel	● Caramel	● Caramel	● Caramel
Walnut	Standart colors	Caramel	● Caramel	● Caramel	● Caramel	~~
Dark Cherry	Standart colors	Caramel	● Black	● Black	● Black	~~
Montana Oak	Standart colors	Caramel	● Black	● Black	● Black	~~
Silver Metallic	Customized colors	White	● Grey	● Grey	~~	~~
Antracite	Customized colors	White	● Black	● Black	~~	~~
Natural Oak	Customized colors	Caramel	● Caramel	● Caramel	~~	~~
Sheffield Oak	Customized colors	White	● Grey	● Grey	~~	~~

Vintage	Ficus	Cloudy Grey	Chocolate Brown	Birch Tree	Light Oak	Antracite Grey	Smoked Oak	Natural Oak	Bonafacio Oak	Polish Pine	Dark Oak
Silver Cloud	Swan White	Autumn Red	Forest Green	Sea Blue	Antracite Grey Sand	Pine Tree	Pearl White	Moran	Mahogany	Stripe Pine	Stucco Oak

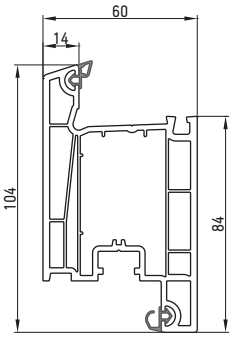
WDS DOORS 60 mm

Mounting depth	60 mm
Outer wall thickness	Class A
Drainage inclination	2°
Insulated glass unit	24, 32 mm, glass 6 mm
Overlap width	14 mm

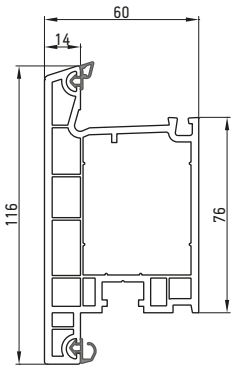
Door sash
(for external opening 104/60 mm)
007



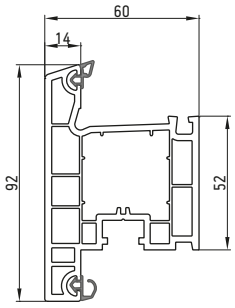
Door sash
(for internal opening 104/60 mm)
008



Door sash
(for external opening 116/60 mm)
036



Door sash
(for external opening 92/60 mm)
056

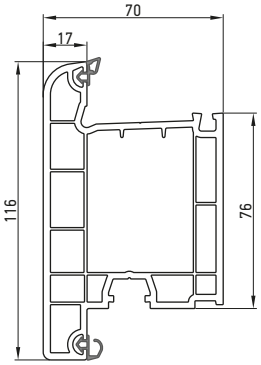


AVAILABLE IN LAMINATION

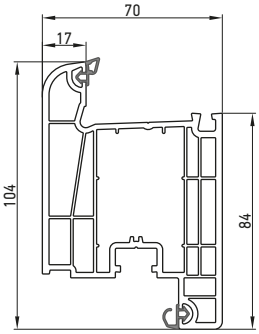
WDS DOORS 70 mm

Mounting depth	70 mm
Outer wall thickness	Class B
Drainage inclination	2°
Insulated glass unit	24, 32, 40 mm
Overlap width	17 mm

Door sash
(for external opening 116/70 mm)
045

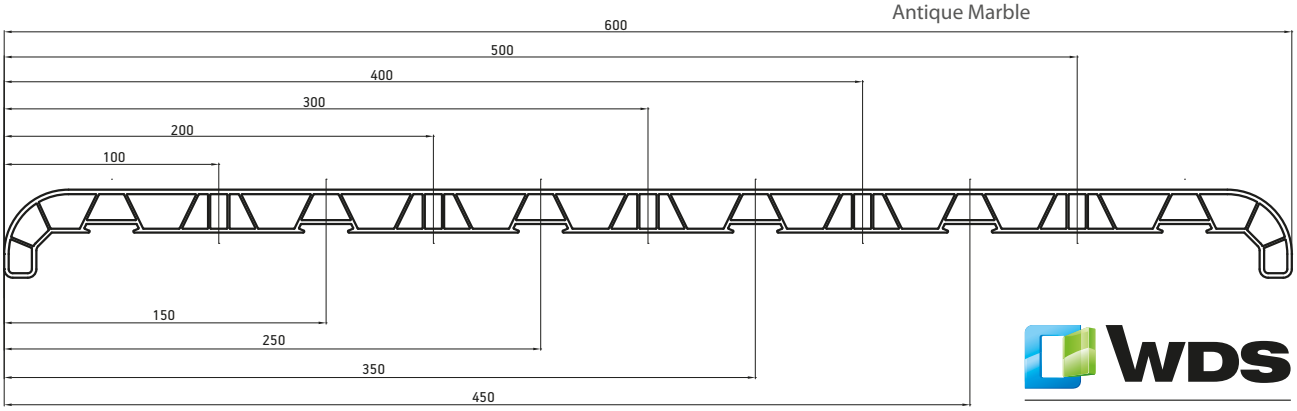


Door sash
(for internal opening 104/70 mm)
078



AVAILABLE IN LAMINATION

08 Shiny White
01 Matt White
06 Smoky Granite
07 Royal Marble
02 Golden Oak
03 Dark Cherry
04 Walnut
05 Montana Oak
10 Antique Marble

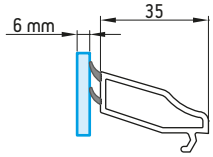


WDS
WINDOWSILL

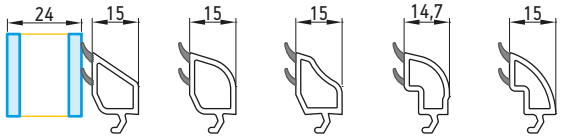
GLAZING BEADS for usage in profile systems

60 mm

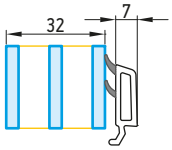
Glass
4-6 mm **004**



Insulated glass unit
24 mm **038** **040** **041** **066** **067**

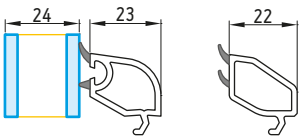


Insulated glass unit
32 mm **044**

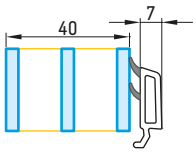


70 mm

Insulated glass unit
24 mm **031** **064**



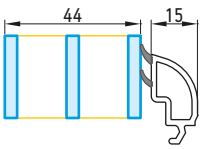
Insulated glass unit
40 mm **044**



Insulated glass unit
32 mm **038** **040** **041** **065** **066** **067**

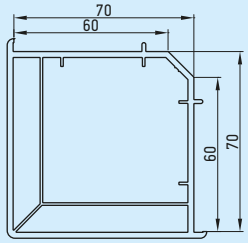
82 mm

Insulated glass unit
44 mm **049**



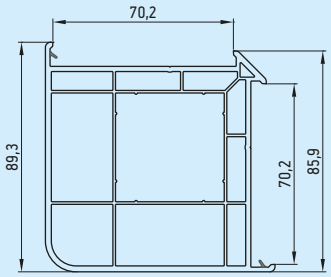
ADDITIONAL PROFILES

Corner connector 90° 60/70



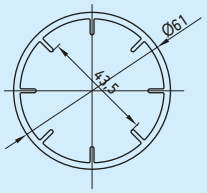
023

Corner connector 90° 70мм



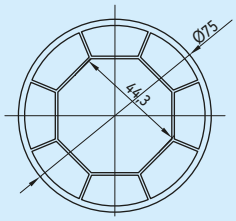
069

Circular connector



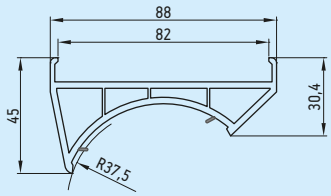
010

Circular connector 75



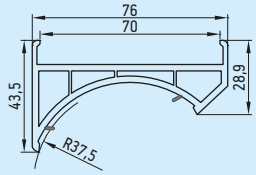
051

Circular connector adapter 82



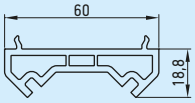
052

Circular connector adapter 70



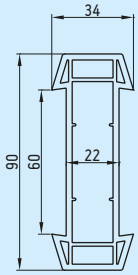
053

Circular connector adapter



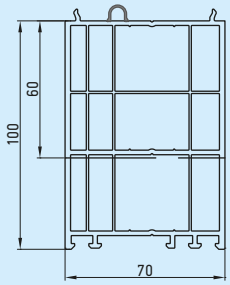
011

Connector-enhancer



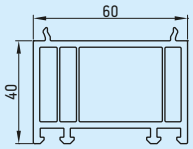
014

Frame expander 100/70



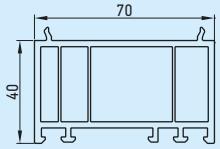
070

Frame expander 40/60



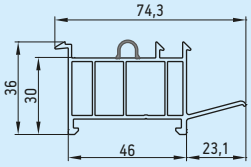
013

Frame expander 40/70



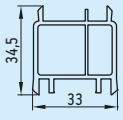
043

New fixed frame



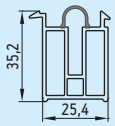
077

Fixed frame



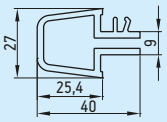
034

Fixed frame with seal



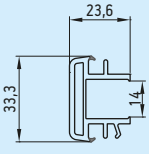
050

Connector-enhancer



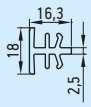
035

Connector



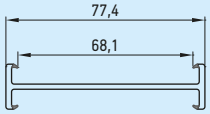
076

Frame H-connector



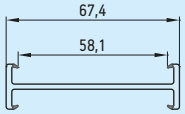
024

H-connector 70 mm



074

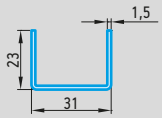
H-connector 60 mm



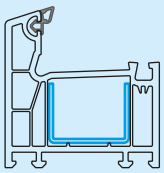
075

REINFORCEMENT – BASIC PROFILES

R000001

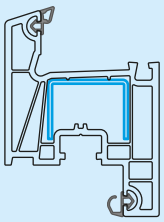


4-chamber frame



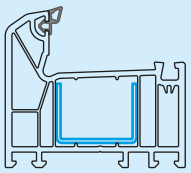
037

4-chamber sash



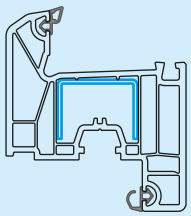
025

5-chamber frame



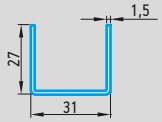
061

5-chamber sash

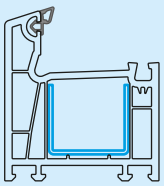


062

R000002

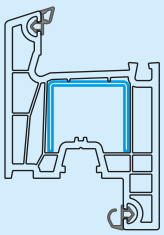


4-chamber frame



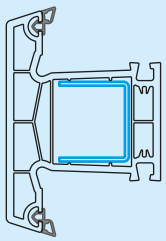
001

4-chamber sash



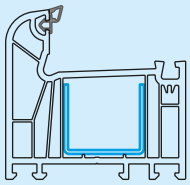
002

4-chamber mullion



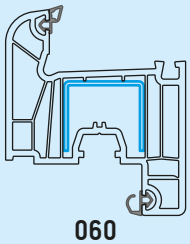
003

6-chamber frame



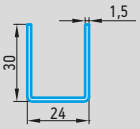
059

6-chamber sash

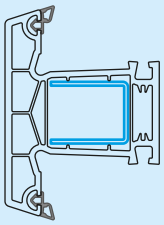


060

R000003

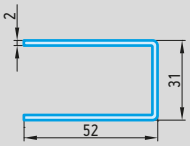


4-chamber mullion

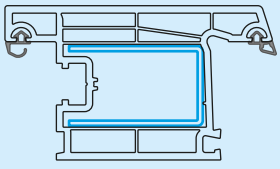


027

R000004

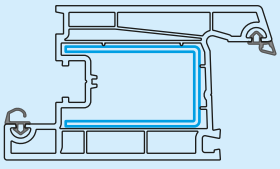


Door sash
(for external opening
104/60 mm)



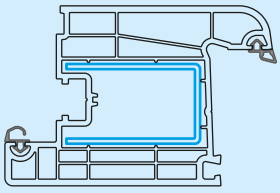
007

Door sash
(for internal opening
104/60 mm)



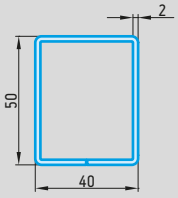
008

Door sash
(for internal opening
104/70 mm)

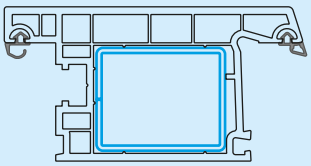


078

R000012

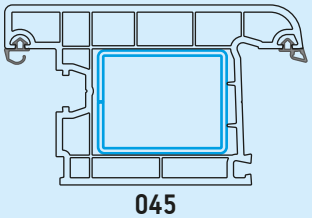


Door sash
(for external opening
116/60 mm)



036

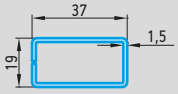
Door sash
(for internal opening
116/70 mm)



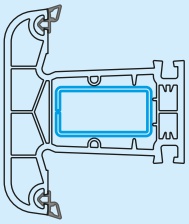
045

REINFORCEMENT – BASIC PROFILES

R000024

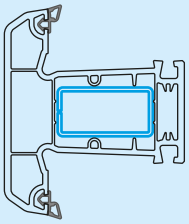


4-chamber mullion



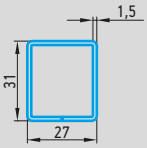
058

3-chamber mullion

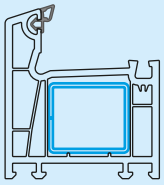


063

R000025

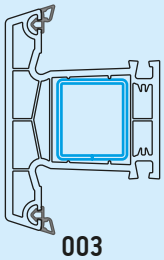


4-chamber frame



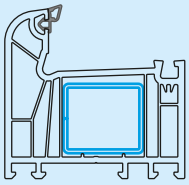
001

4-chamber mullion



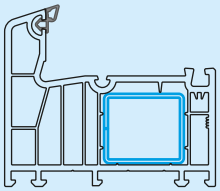
003

6-chamber frame



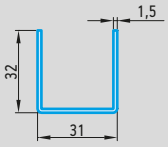
059

6-chamber frame

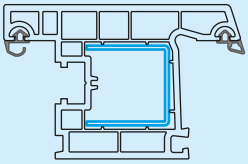


046

R000026

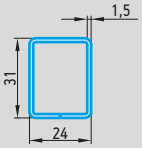


Door sash
(for external opening 92/60 mm)

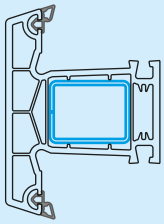


056

R000028

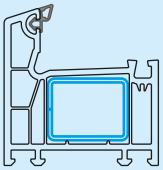


4-chamber mullion



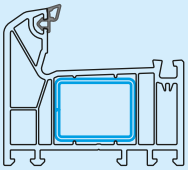
027

4-chamber frame



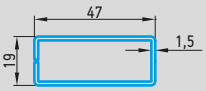
037

5-chamber frame

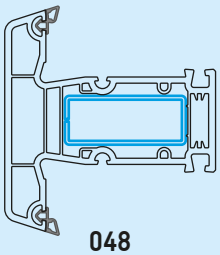


061

R000040

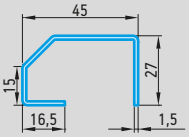


4-chamber mullion

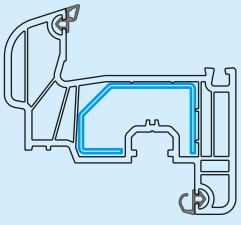


048

R000042



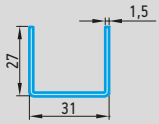
6-chamber sash



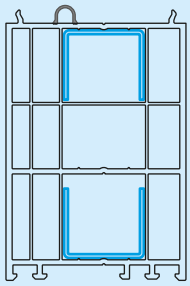
047

REINFORCEMENT – ADDITIONAL PROFILES

R000002

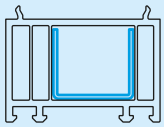


Frame expander 100/70



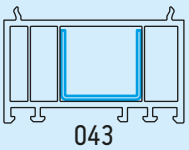
070

Frame expander 40/70



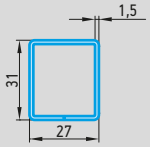
013

Frame expander 40/70

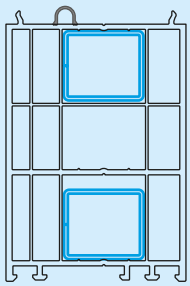


043

R000025

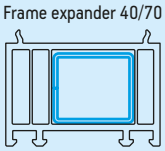


Frame expander 100/70



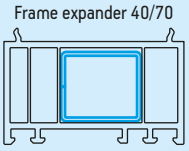
070

Frame expander 40/70



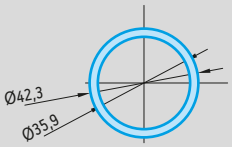
013

Frame expander 40/70

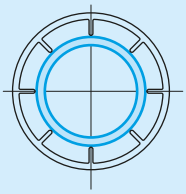


043

R000006

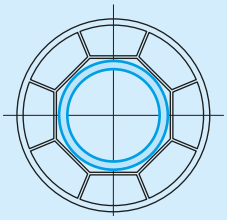


Circular connector



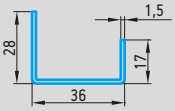
010

Circular connector 75

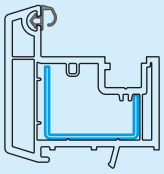


051

R000009

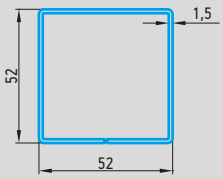


Stulp 60 mm

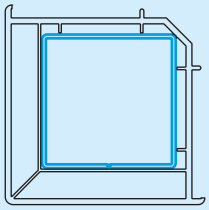


012

R000011

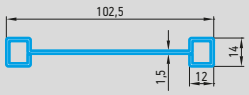


Corner connector 90°



023

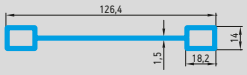
R000022



Connector-enhancer

035

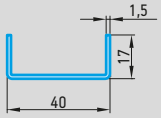
R000023



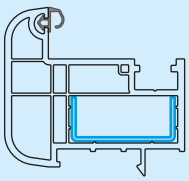
Connector-enhancer

035

R000027

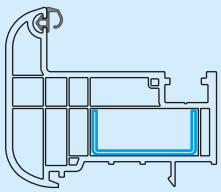


Stulp 70 mm



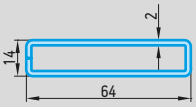
054

Stulp 82 mm

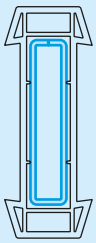


068

R000007

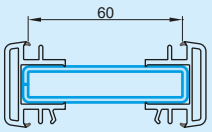


Connector-enhancer



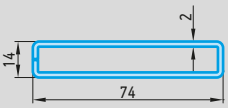
014

Connector-enhancer

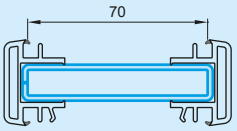


076

R000039

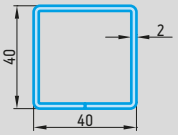


Connector-enhancer

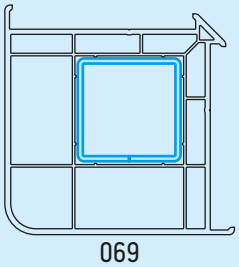


076

R000038



Corner connector 90° 70 мм



069

SEALS

We use seals made from special TPE-V class for WDS profile systems.

An important advantage of PP/EPDM based on TPE-V seals is their resistance to the ozone impact and weather conditions. If properly used, service life of such seals is comparable to the service life of the entire window.

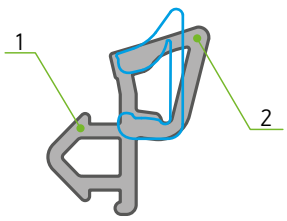
PP/EPDM operating temperature range extends from -30°C to 100 °C.

PP/EPDM based TPE-V seals are well welded on standard machines with welding mirrors at 230-250°C. Thermoplastic features during welding provide high weld strength. This ensures a reliable seal at the corners of window structures. During the tests performed on off-the-shelf windows, the windows proved to be compliant with all regulatory requirements for heat and noise protection, and air permeability.

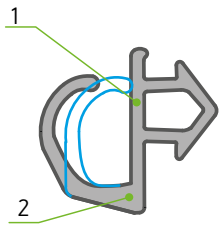
WDS profile system uses 4 types of seals:
— Frame seal – two-component TPE-V/EPDM;
— Sash seal – two-component TPE-V/EPDM;
— Glazing bead seal – co-extruded soft PVC;
— Central seal contour – two-component TPE-V/EPDM;

Two-component TPE-V – seal consists of two parts: soft thermoplastic elastomer No.1 and hard thermoplastic elastomer No.2.

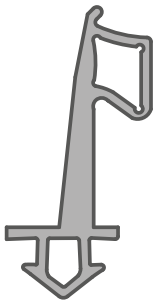
Frame seal



Sash seal



Central seal contour

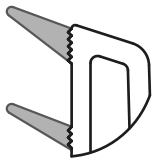


Interior, spacer No.1 –a semihard thermoplastic elastomer, easy in processing, ensures reliable fixing in the profile, eliminates the possibility of longitudinal movement in the profile during recycling.

External, soft part No.2 – soft thermoplastic elastomer, provides rubber properties to the material: elasticity, softness, flexibility, low residual deformation.

This part of the seal is functional and provides structure sealing due to its unique softness and constructive design of the seal.

Glazing bead seal



Coextruded seal in glazing beads – is a mixture based on plasticized dioctyl phthalate (DOP) PVC and nitrile rubber that makes seals flexible and enables to use them in temperature range from -30°C to +100°C. This technology allows to improve the sealing of IGU joints and PVC profile joints as well as fixing insulated glass units in the frame.

This technology fully eliminates the seal shrinkage on glazing bead while cutting it during assembly and operation of windows.

Results of tests conducted at the Institute for Window Technology **ift Rosenheim** (Germany)

Air permeability according to EN 12207:1999-11

Class 4

Operating forces according to EN 13115:2001-07

Class 1

Watertightness according to EN 12208:1999-11

Class 7A

Mechanical durability according to EN 12400:2002-10

Class 2

Resistance to wind load according to EN 12210:1999-11/AC:2002-08

Class C3 / B3

Impact resistance according to EN 13049:2003-04

Class 3

Structural connection at an angle of 90-180°

Circular connector in WDS profile systems enables facade glazing with customized angle from 90° to 180°.

Application of circular connector can be a profitable solution for the creation of separate enclosures inside the buildings or separate premises, as well as for the construction of external 'warm' structures.

For convenience in designing of this structure, this booklet presents design schemes for connection with frames depending on the desired angle. In order to determine the required dimensions for the structure, only one size will be needed: the distance from the center of the bow window tube to the beginning of the connected structure (frame). This size is highlighted by * symbol in the drawings. Regardless of the connection angle, you need to find the center of bow window tube location and measure abovementioned distance (different for each system) away from it in both directions (along the facade location axis). The points found will present the frame dimensions.

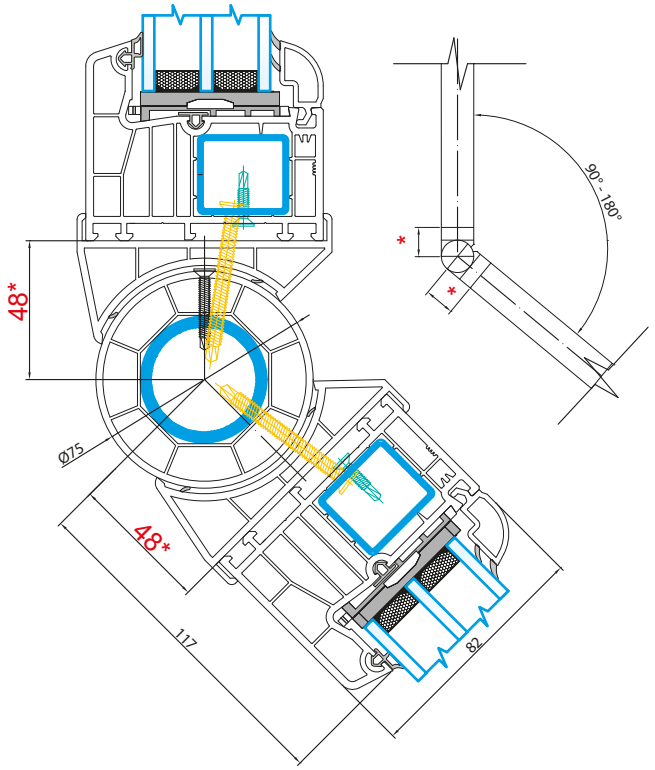
Reinforcing profile ends of bow window must always be secured in the opening or floor structure.

Circular connector adapter 82	item No. 052
Circular connector adapter 70	item No. 053
Circular connector 75	item No. 051
Circular connector	item No. 010

System with 82 mm mounting width

Frame – Circular connector adapter 82 – Circular connector 75 – Circular connector adapter 82 – Frame

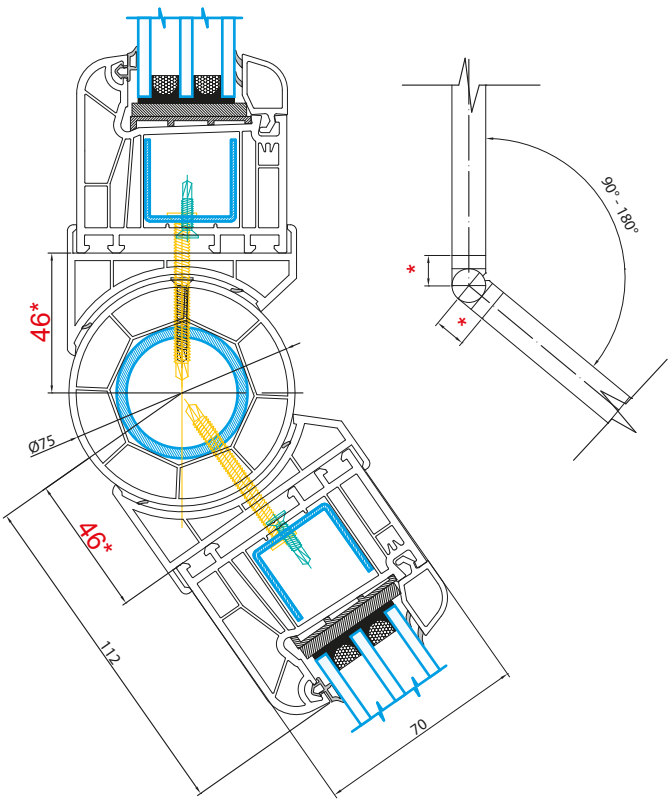
Jx = 12 cm^4, Jy = 11 cm^4 (1,5mm)



Systems with 70 mm mounting width

Frame – Circular connector adapter 70 – Circular connector 75 – Circular connector adapter 70 – Frame

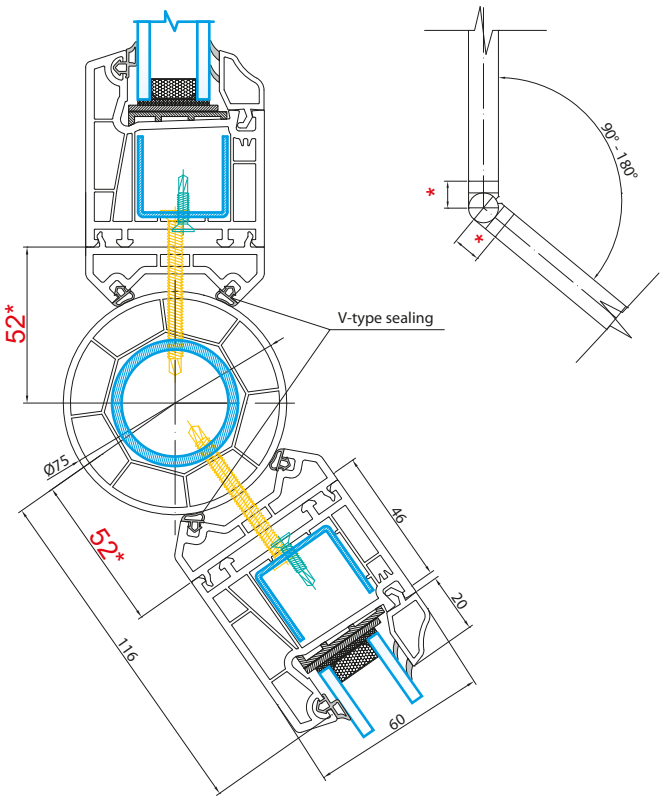
Jx = 11,5 cm^4, Jy = 9,5 cm^4 (1,5mm)



System with 60 mm mounting width

Frame – Circular connector adapter – Circular connector – Circular connector adapter – Frame

Jx = 11,5 cm^4, Jy = 9,5 cm^4 (1,5mm)



Structural connection at an angle of 90°

90° corner connector can be applied to profile systems with 60 mm and 70 mm mounting width.

90° corner connector can be used strictly for right angles.

If there is uncertainty in the right angle, use a circular connector.

This type of connection is widely applied in the glazing for balconies, office dividers, lobby type entrance structures, etc.

When calculating the dimensions for frame structures with 90° corner connector, it is necessary to subtract 72.6 mm for each side from overall size.

While assembling the structures with 90° angle connector, it is necessary to perform additional sealing for joints abutting to the frames as indicated in the drawing. For sealing material, you can use technical silicone, polyethylene foam or polystyrene, mosquito cord or tubular seal of EPDM, PVC, TPV.

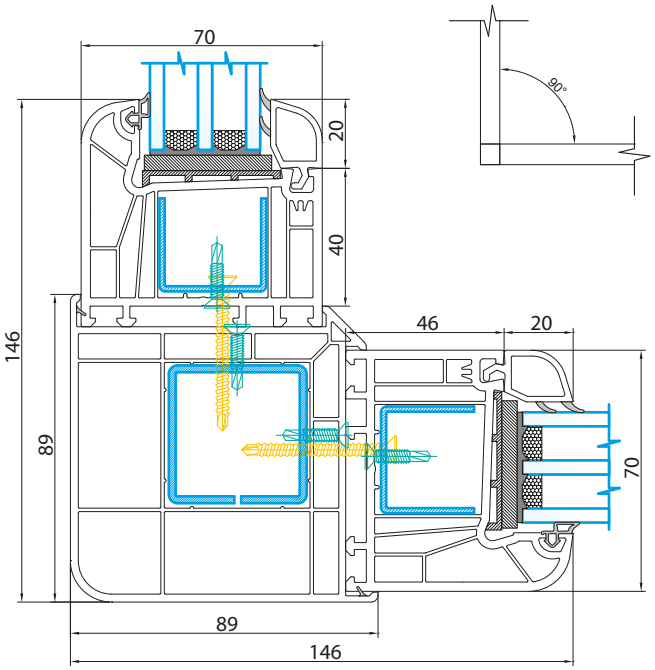
Reinforcing profile ends of corner connector must always be secured in the opening or floor structure.

Corner connector 90° Corner connector 90° 70 mm	Item No. 023 Item No. 069

System with 70 mm mounting width

Frame – Corner connector 90° 70 mm – Frame

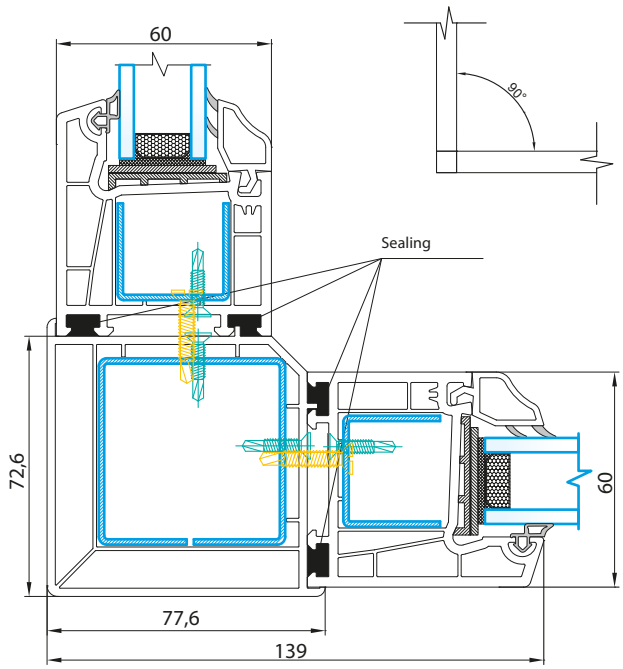
Jx = 10,04 cm^4, Jy = 10,07 cm^4(1,5 mm)



System with 60 mm mounting width

Frame – 90° corner connector – Frame

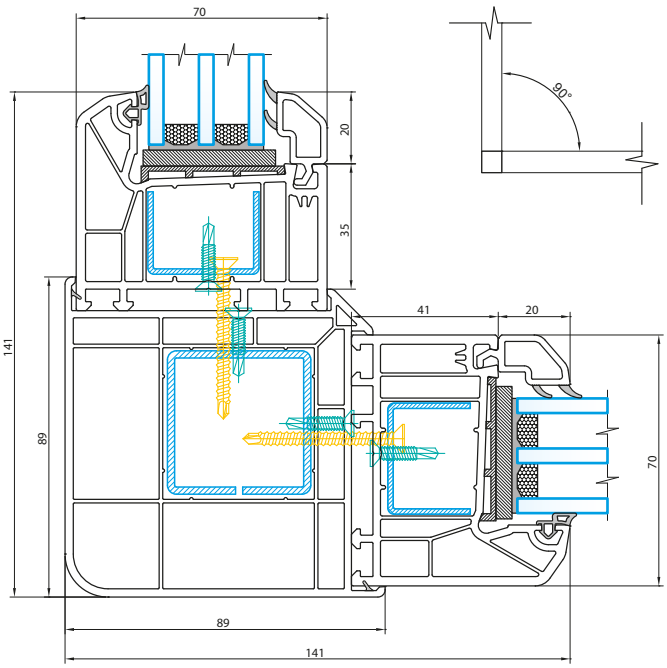
Jx = 15,5 cm^4, Jy = 15,6 cm^4(1,5 mm)



System with 70 mm mounting width

Frame – Corner connector 90° 70 mm – Frame

Jx = 9,45 cm^4, Jy = 9,48 cm^4(1,5 mm)



Connection with frame expander

WDS 40 mm frame expanders can be used for profile systems with 60, 70, 82 mm mounting width.

The main functional purpose of frame expander:

1. Height adjustment in frame facade part to the high fillister in the window aperture.

2. Extending the frame in case of future need to lower the ceiling or raise the floor.

If the necessary extension of frame must be over 40 mm, additional extender should be used.

When using 40/70 frame expander with WDS 8 SERIES profile system, it is recommended to base its front plane with that frame plane, which will be the visible part of the window structure (as shown in 2 examples).

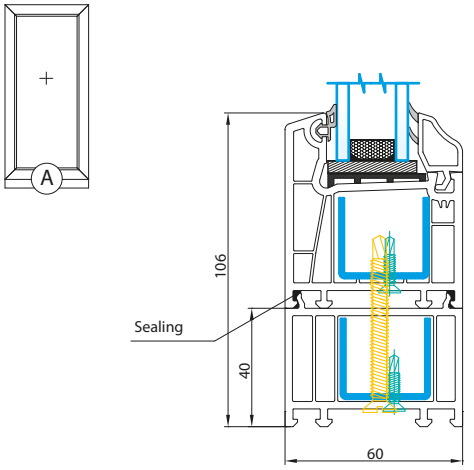
While assembling the structures with frame expander 40, it is recommended to perform additional sealing for joints abutting to the frames as indicated in the drawings.

40/60 frame expander	Item No. 013
40/70 frame expander	Item No. 043
100/70 frame expander	Item No. 070

System with 60 mm mounting width

Frame – 40/60 frame expander

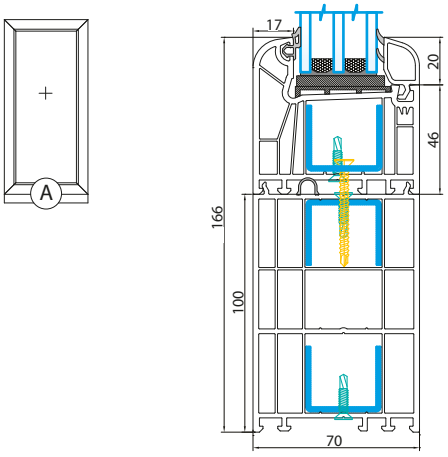
Jx = 1,86 cm^4, Jy = 4,02 cm^4(1,5 mm)



System with 70 mm mounting width

Frame – 100/70 frame expander

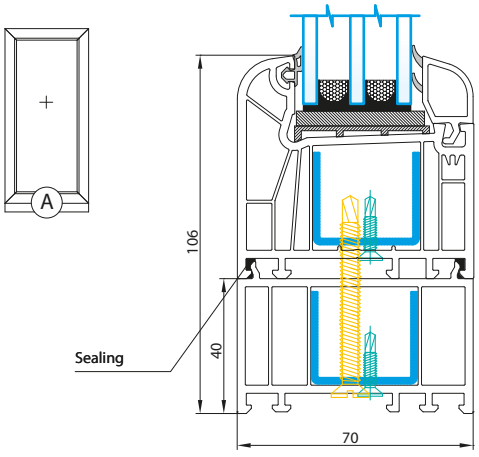
Jx = 2,79 cm^4, Jy = 6,00 cm^4(1,5 mm)



System with 70 mm mounting width

Frame – 40/70 frame expander

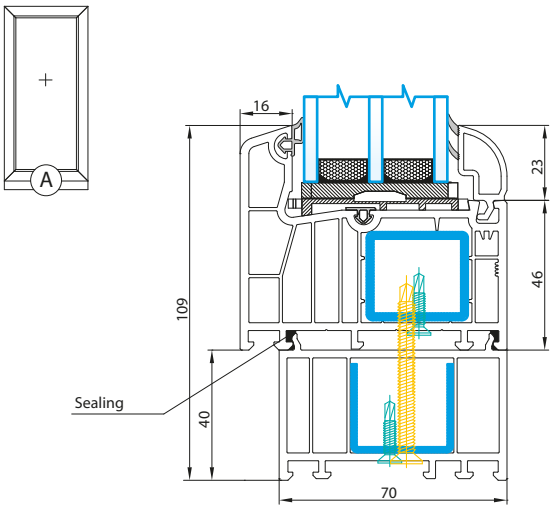
Jx = 1,86 cm^4, Jy = 4,02 cm^4(1,5 mm)



System with 82 mm mounting width

Frame – 40/70 frame expander

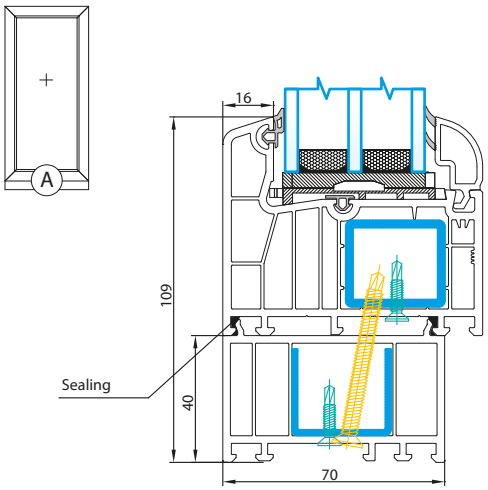
Jx = 3,17 cm^4, Jy = 3,83 cm^4(1,5 mm)



System with 82 mm mounting width

Frame – 40/70 frame expander

Jx = 3,17 cm^4, Jy = 3,83 cm^4(1,5 mm)



Connection with H-connector

WDS H-connector can be used for profile systems with 60, 70, 82 mm mounting width.

The use is versatile due to unification of the frame mounting latches for all WDS profile systems.

This type of connection is widely applied in the glazing for balconies, office dividers, lobby type entrance structures, etc.

WDS H-connector is designed to connect two frames in cases where strengthening of their junction performance is not necessary. It is recommended to use H-connector in structures not exceeding 1.8 m in height (depending on the structure width of the structure).

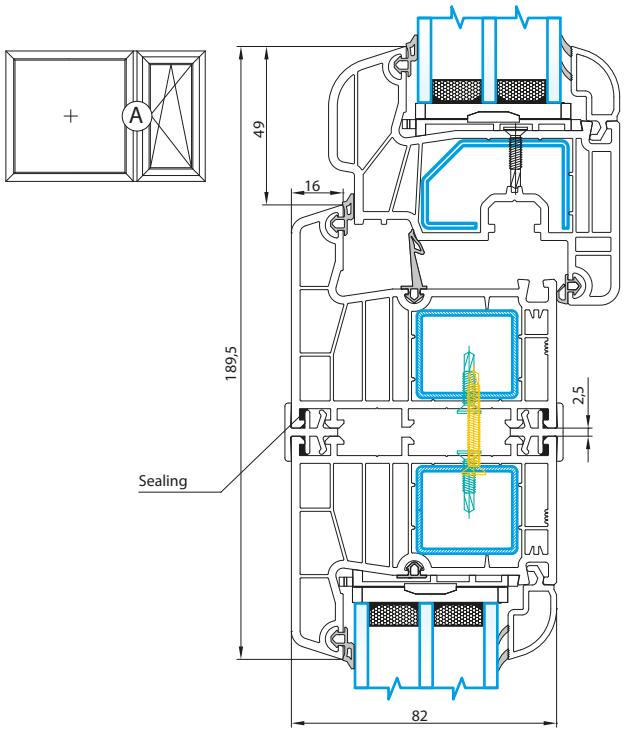
While assembling the structures with H-connector, it is recommended to perform additional sealing for joints abutting to the frames as indicated in the drawings.

H-connector	Item No. 024
H-connector 70mm	Item No. 074
H-connector 60mm	Item No. 075

System with 82 mm mounting width

Sash – Frame – H-connector – Frame

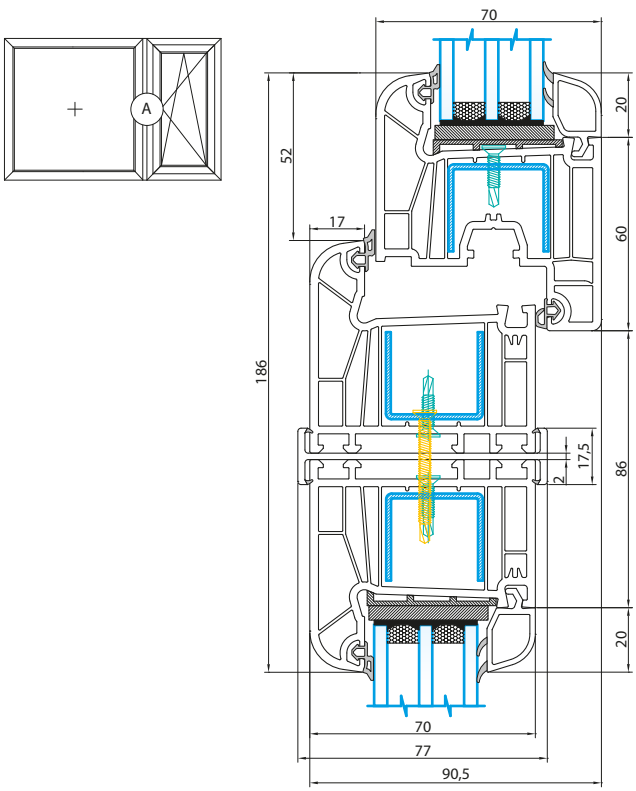
Jx = 4,48 cm^4, Jy = 3,64 cm^4 (1,5mm)



System with 70 mm mounting width

Sash – Frame – H-connector 70mm – Frame

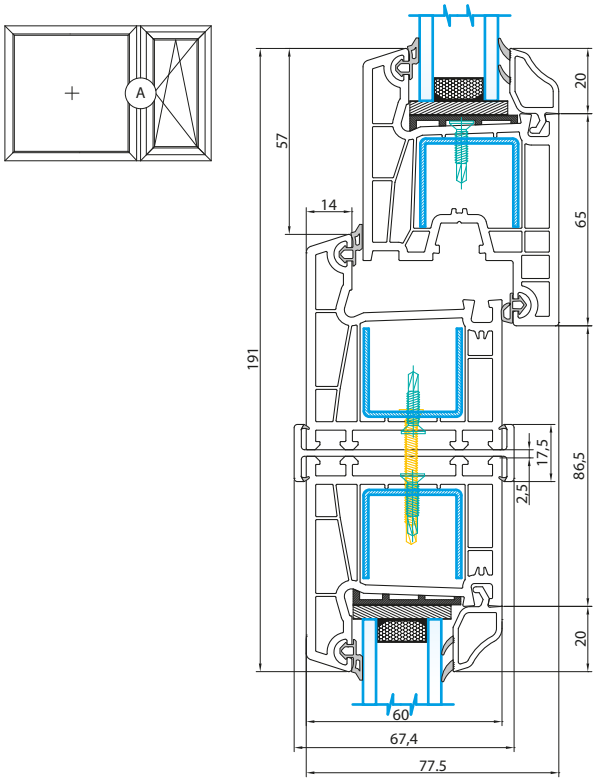
Jx = 1,86 cm^4, Jy = 4,00 cm^4 (1,5mm)



System with 60 mm mounting width

Sash – Frame – H-connector 60mm – Frame

Jx = 1,86 cm^4, Jy = 4,00 cm^4 (1,5mm)



Connection with connector-enhancer

WDS connector-enhancer can be used for profile systems with 60, 70, 82 mm mounting width.

The use is versatile due to unification of the frame mounting latches as well as to the application of reinforcing of two types: R000022 for 60 and 70 mm systems, R000023 for 82 mm system.

WDS connector-enhancer is designed for static reinforcement of structures and resistance to wind loads. High inertia resistance moment enables glazing up to 3.5 m in height.

While assembling the structures, it is necessary to perform additional sealing for joints abutting to the frames as indicated in the drawing. For sealing material, you can use technical silicone, polyethylene foam or polystyrene, mosquito cord or tubular seal of EPDM, PVC, TPV.

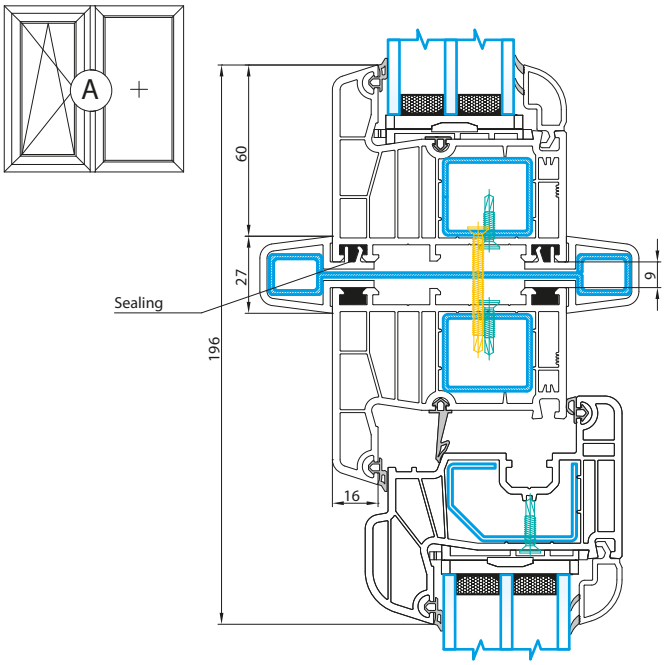
Reinforcing profile ends of connector-enhancer must always be secured in the opening or floor structure.

Connector-enhancer	Item No. 035

System with 82 mm mounting width

Frame – Connector-enhancer – Frame – Sash

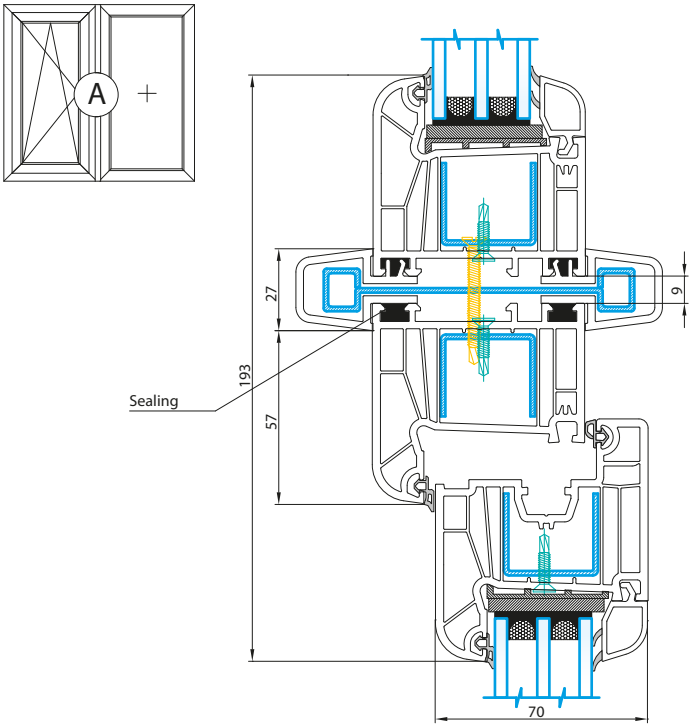
Jx = 38,83 cm^4, Jy = 3,99 cm^4 (1,5mm)



System with 70 mm mounting width

Frame – Connector-enhancer – Frame – Sash

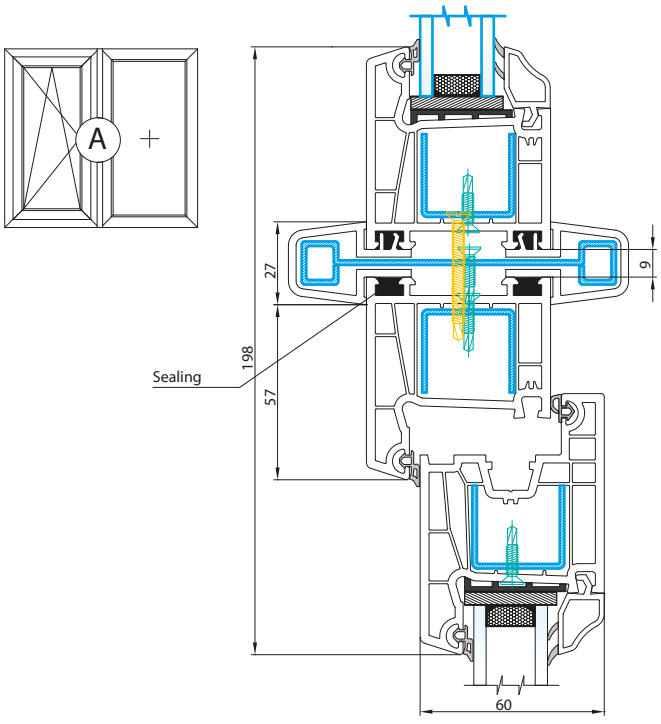
Jx = 36,21 cm^4, Jy = 4,37 cm^4 (1,5mm)



System with 60 mm mounting width

Frame – Connector-enhancer – Frame – Sash

Jx = 36,21 cm^4, Jy = 4,37 cm^4 (1,5mm)



Connection with connector

WDS connector-enhancer can be used for profile systems with 60, 70, 82 mm mounting width.

WDS connector is designed for static reinforcement of structures and resistance to wind loads. High inertia resistance moment enables glazing up to 3.5 m in height.

While assembling the structures, it is necessary to perform additional sealing for joints abutting to the frames as indicated in the drawing. For sealing material, you can use technical silicone, polyethylene foam or polystyrene, mosquito cord or tubular seal of EPDM, PVC, TPV.

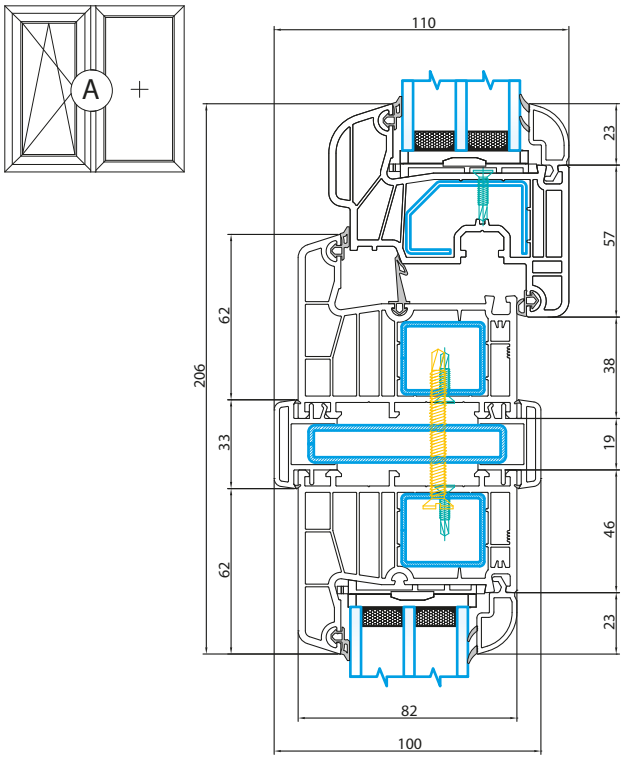
Reinforcing profile ends of connector must always be secured in the opening or floor structure.

Connector	Item No. 076

System with 82 mm mounting width

Frame – Connector – Frame – Sash

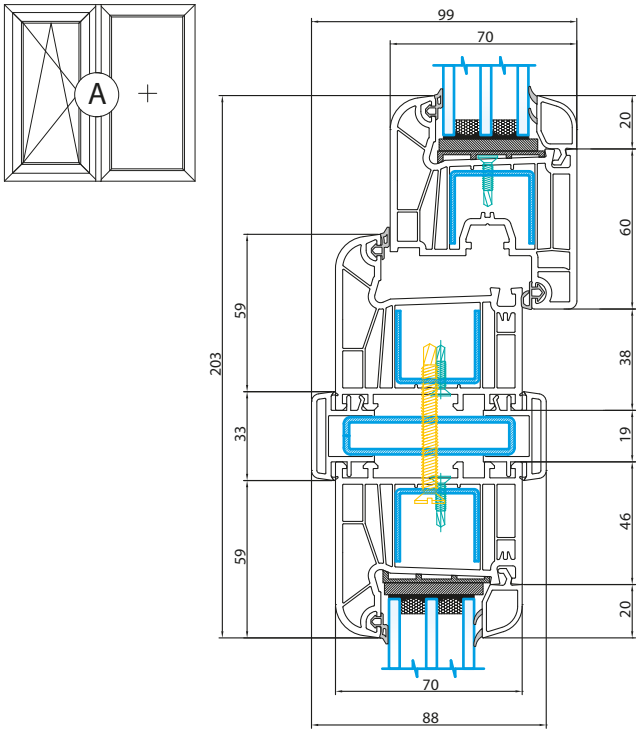
Jx = 4,69 cm^4, Jy = 22,41 cm^4 (1,5mm)



System with 70 mm mounting width

Frame – Connector – Frame – Sash

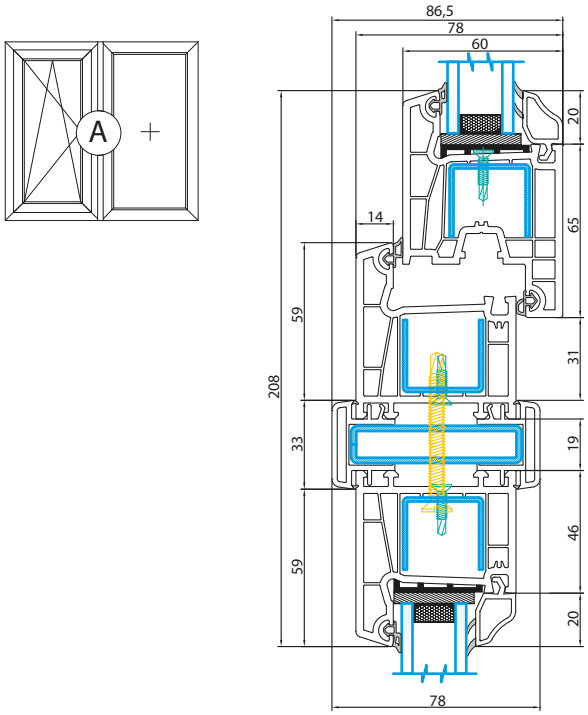
Jx = 4,15 cm^4, Jy = 16,03 cm^4 (1,5mm)



System with 60 mm mounting width

Frame – Connector – Frame – Sash

Jx = 4,15 cm^4, Jy = 16,03 cm^4 (1,5mm)



Connection with Fixed frame new

WDS fixed frame new (Item No.077) can be used for profile systems with 70 and 82 mm mounting width.

The main functional purpose of fixed frame:

1. Simplifies metal plastic window transportation. Bottom frame surface often touches floor while transportation. Fixed frame new profile prevents from window frame deformation and damage.

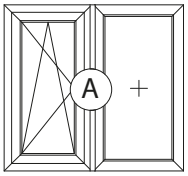
2. Allows to fix windowsill from one side and drip strip from another. Fixed frame new is completed with leg for windowsill fixation.

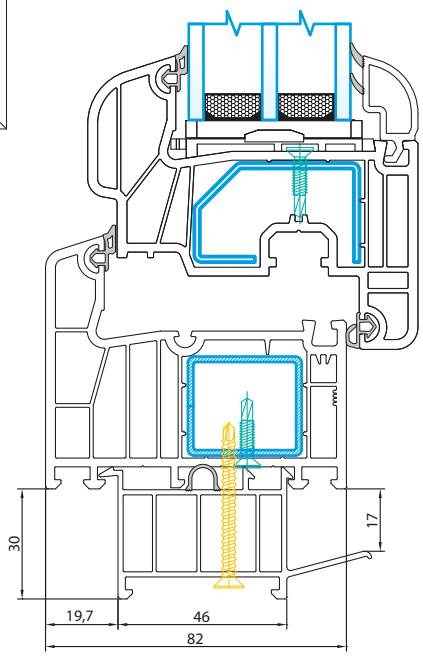
3. Provides additional thermal insulation of field weld. It is completed with gasket for tighter connection to frame bottom part.

Fixed frame new	Item No. 077

System with 82 mm mounting width

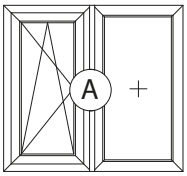
Fixed frame new - Frame - Sash

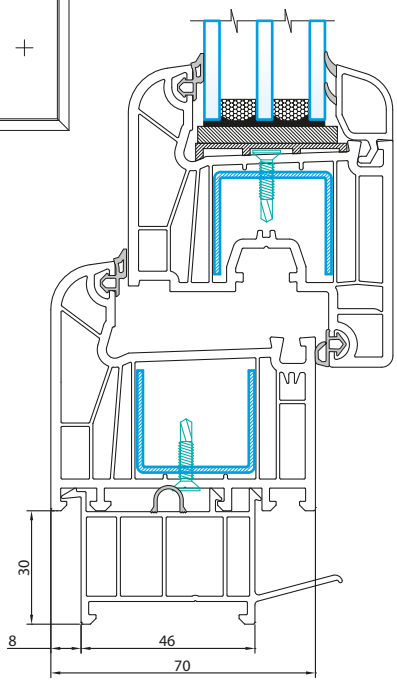




System with 70 mm mounting width

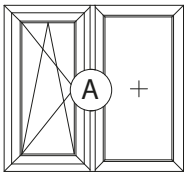
Fixed frame new - Frame - Sash

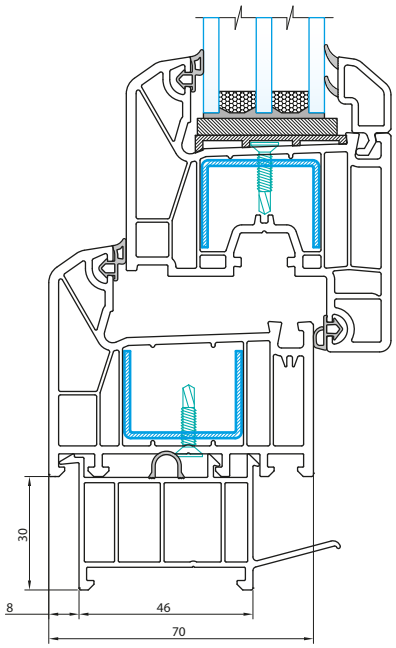




System with 70 mm mounting width

Fixed frame new - Frame - Sash





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MIROPLAST

WHEN QUALITY MATCHES DESIGN

WDS profiles are manufactured and marketed by MIROPLAST Ltd.
This is one of the most powerful manufacturers of PVC profile systems in Ukraine.
Our certified laboratory operates continuously to ensure that our products meet the highest international manufacturing standards for quality and design.

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